

REMARKS

Claims 1-13, 16-20, 22-25, 30-33, 35-42, 44, and 46 stand under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0083245 by Beeler, JR. (hereinafter Beeler) in view of US Patent 6,505,216 to Schutzman et al. (hereinafter Schutzman), US Patent 6,883,110 to Goddard (hereinafter Goddard) and US Patent 5,771,354 to Crawford (hereinafter Crawford). Claim 15 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Beeler, Schutzman, Goddard, and Crawford in view of US Patent 7,296,088 to Padmanabhan et al. (hereinafter Padmanabhan).

Applicant thanks the Examiner for the telephone interview of January 12, 2009. We discussed the present invention and a proposed amendment. Applicant agreed to further amend the independent claims to add limitations of assembling backup data packets in the non-transparent sequence.

Amendments to the Claims

Applicant have amended claim 1 with the limitation:

“a packet storage module configured to store the data on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, ~~with client usage fees determined by a subscription manager and~~ wherein each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and maximum distance packet proximity parameter each specifying a distance value measured in a unit selected

from miles and kilometers;”

The amendment is fully supported by the specification. See page 21, ¶ 72. Applicant note that the alternative of miles or kilometers disclosed in the specification is expressed using Markush claim language with miles and kilometers belonging to a recognized physical class. See MPEP § 803.02

Applicant have further amended claim 1 with the limitations:

“a packet retrieval module configured to retrieve the plurality of backup data packets backed up on the plurality of target clients; and
a data assembly module configured to assemble the retrieved plurality of backup data packets in the non-transparent sequence.”

The amendment is well supported by the specification. See page 30, ¶ 101; original claims 6 and 8.

Claims 16, 19, 30, 36, 37, and 46 are similarly amended. Claims 6, 8, 15, 40, and 41 are canceled. Claim 7 is amended to conform to amended predecessor claims.

Applicant has also added new claims 47-52. New claims 47, 50, and 52 include the limitations of claims 4, 12, and 13. New claims 48, 59, and 51 include the limitations of claims 12 and 13.

Response to rejections of claims under 35 U.S.C. § 103(a)

Claims 1-13, 16-20, 22-25, 30-33, 35-42, 44, and 46 stand under 35 U.S.C. 103(a) as being unpatentable over Beeler in view of Schutzman, Goddard, and Crawford. Claim 15 stands

rejected under 35 U.S.C. § 103(a) as unpatentable over Beeler, Schutzman, Goddard, and Crawford in view of Padmanabhan.

Independent claim 1 includes the limitations:

“...a client request module configured to receive data to be backed up from a source client;

a sequence module configured to **generate a non-transparent sequence of a plurality of target clients, wherein the non-transparent sequence comprises an order that a plurality of backup data packets are stored on the plurality of target clients and the non-transparent sequence is unique and exclusively accessible to a global sequence manager;**

a packet storage module configured to **store the data on the plurality of target clients according to the non-transparent sequence**, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein **each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and maximum distance packet proximity parameter each specifying a distance value measured in a unit selected from miles and kilometers;**

a packet retrieval module configured to **retrieve the plurality of backup data packets backed up on the plurality of target clients;** and

a data assembly module configured to **assemble the retrieved plurality of backup data packets in the non-transparent sequence.”** Emphasis added.

Claims 16, 19, 30, 36, 37, and 46 include similar limitations. The present invention claims receiving data to be backed up, generating a non-transparent sequence of a plurality of target clients, wherein the non-transparent sequence comprises an order that a plurality of backup

data packets are stored on the plurality of target clients and the non-transparent sequence is unique and exclusively accessible to a global sequence manager, and storing the data on the plurality of target clients according to the non-transparent sequence. See claim 1. Each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and maximum distance packet proximity parameter each specifying a distance value measured in miles or kilometers. See claim 1. The present invention further claims retrieving the plurality of backup data packets backed up on the plurality of target clients and assembling the retrieved plurality of backup data packets in the non-transparent sequence. See claim 1.

The present invention claims "...store the data on the plurality of target clients according to the non-transparent sequence..." and "...wherein the non-transparent sequence comprises an order that a plurality of backup data packets are stored on the plurality of target clients and the non-transparent sequence is unique and exclusively accessible to a global sequence manager...." See claim 1, order reversed for clarity. Thus the present invention claims storing data according to a non-transparent sequence that is an order backup data packets are stored on target clients.

The present invention further claims "...retrieve the plurality of backup data packets backed up on the plurality of target clients..." and "...assemble the retrieved plurality of backup data packets in the non-transparent sequence...." Thus the present invention further claims retrieving the backup data packets and assembling the backup data packets in the non-transparent sequence or the order the backup data packets were stored on the target clients.

The Examiner argues that Beeler discloses the non-transparent list claimed in the present invention by teaching maintaining a list of target servers and backing up data to the target servers on the list. Office Action of November 21, 2008 (OA), page 3, lines 8-16, citing Beeler, page 6, ¶ 84, 91; page 9, ¶ 121. Applicant submits that the non-transparent sequence claimed by the present invention is distinguished from the list of target servers taught by Beeler in at least two ways. First, the list of Beeler does not comprise an order that backup data packets are stored, whereas the present invention claims that "...the non-transparent sequence comprises an order that a plurality of backup data packets are stored on the plurality of target clients...." See Beeler, page 6, ¶ 84. In addition, Beeler does not teach that backup data is assembled using an order of the list of target servers, whereas the present invention claims "...assemble the retrieved plurality of backup data packets in the non-transparent sequence...." Applicant therefore submit that Beeler does not teach the limitations "...store the data on the plurality of target clients according to the non-transparent sequence....," "...wherein the non-transparent sequence comprises an order that a plurality of backup data packets are stored on the plurality of target clients and the non-transparent sequence is unique and exclusively accessible to a global sequence manager....," "...retrieve the plurality of backup data packets backed up on the plurality of target clients..." and "...assemble the retrieved plurality of backup data packets in the non-transparent sequence...." Schutzman, Goddard, and Crawford also do not disclose these elements.

As we discussed, Applicant submit that the present invention is distinguished over Beeler, Schutzman, Goddard, and Crawford in claiming that "...each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more

than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and maximum distance packet proximity parameter each specifying a distance value measured in a unit selected from miles and kilometers....” See claim 1. In OA, page 3, line 21 – page 4, line 4, the Examiner argues that no explicit meaning for minimum and maximum distance packet proximity parameters is claimed.

Applicant have therefore amended the independent claims with the limitation that the minimum distance packet proximity parameter and the maximum distance packet proximity parameter each specify a distance value measured in a unit selected from miles and kilometers. In addition, the present invention claims that each physical distance between each target client is not less than the minimum distance packet proximity parameter and not more than the maximum distance packet proximity parameter. The limitation “...each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and maximum distance packet proximity parameter each specifying a distance value measured in a unit selected from miles and kilometers...” is not disclosed by Beeler’s teaching of servers. OA, page 3, lines 18-21, citing Beeler page 5, ¶ 77; page 6, ¶ 84-85. Schutzman, Goddard, and Crawford also do not disclose this element.

The Examiner asserts Padmanabhan’s teaching of getting location codes from routers and computing distances discloses the element “...each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and

maximum distance packet proximity parameter each specifying a distance value measured in a unit selected from miles and kilometers....” OA, page 24, lines 4-6. Padmanabhan, col. 8, lines 18-58; col. 10, lines 27-57. Applicant respectfully disagrees. While Padmanabhan does disclose calculating distances to an internet host, Padmanabhan does not disclose that the physical distance between clients is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter. Applicant therefore submits that Padmanabhan does not teach the element “...each physical distance between each target client is not less than a minimum distance packet proximity parameter and not more than a maximum distance packet proximity parameter, the minimum distance packet proximity parameter and maximum distance packet proximity parameter each specifying a distance value measured in a unit selected from miles and kilometers....”

Because Beeler, Schutzman, Goddard, and Padmanabhan do not teach each element of the claimed invention, Applicant submits that claims 1, 16, 19, 30, 36, 37, and 46 are allowable, and that claims 2-5, 7, 9-13, 17, 18, 20, 22-25, 31-33, 35, 38, 39, 42, 44, and 47-52 are allowable as depending from allowable claims. Claims 6, 8, 15, 40, and 41 are canceled.

With further regards to claims 4, 20, 33, 47, 50, and 52, Applicant submits that Beeler, Shutzman, and Goddard does not disclose the limitation of “...maps the data to source client using a unique data identifier corresponding to the data, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data...” See claim 47. The Examiner argues that Goddard’s teaching of data portions in server appliance storage stored to client information handling systems discloses this limitation. OA, page 6,

lines 10-14, citing Goddard, col. 4, line 59 – col. 5, line 13; fig. 2.

Applicant respectfully disagrees. Goddard does not disclose mapping data with an identifier, but shows identifiers in figure 2 for illustrative purposes. Goddard, col. 4, line 59 – col. 5, line 13; fig. 2. Goddard therefore does not disclose mapping data with an identifier. Applicant therefore submits that claims 4, 20, 33, 47, 50, and 52 are allowable as Beeler, Shutzman, and Goddard does not disclose this element.

With regards to claim 12, 13, 47-51, Applicant submits that Goddard does not disclose “...creates a redundant backup data packet for each backup data packets prior to storing the backup data packets on the plurality of target clients and stores the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence...” See claim 47. The Examiner argues that Goddard’s teaching of parity data discloses this limitation. OA, page 9, lines 1-4, citing Goddard, col. 6, lines 41-52.

Applicant respectfully disagrees. The present invention claims creating a redundant backup data packet. In contrast, Goddard only discloses including parity information with data. Goddard, col. 6, lines 41-52. Goddard does not disclose creating a redundant backup data packet. Applicants therefore submit that Goddard does not disclose the element of “...creates a redundant backup data packet for each backup data packets prior to storing the backup data packets on the plurality of target clients and stores the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence...” and that claims 12, 13, 47-51 are allowable as Beeler, Shutzman, and Goddard does not disclose this element.

Conclusion

As a result of the presented remarks, Applicant asserts that the application is in condition for prompt allowance. Should additional information be required regarding the traversal of the rejections of the claims enumerated above, Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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